

REMARKS

Applicant respectfully requests reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow.

Claims 8, 11, 13-15, and 19-20 were previously cancelled. Claim 12 is requested to be cancelled without prejudice.

Claims 1-7, 9-10, 16-18 and 25-29 are currently being amended. No new matter is added.

Advisory Action Remarks

In the Advisory Action, the Examiner stated that “the limitation of ‘synchronize a rolling code count’ and ‘sequential encrypted rolling code values in accordance with the identified rolling code encryption algorithm’ was not identified in the specification and could bring up issues of new matter.”

Applicants respectfully submit that the Claim language mentioned by the Examiner is fully supported by the Specification.

Regarding “synchronize a rolling code count,” support for this concept begins in the Background. For example, para. [0004] explains that “[w]hen training or programming a new transmitter to operate with a receiver, the two must be ‘synchronized’ so that their [rolling code] counters begin at the same value.” Support for “synchronize a rolling code count” continues in at least FIG. 4 and the accompanying description which particularly relate to steps for synchronizing a rolling code counter value of a trainable transceiver with a rolling code counter value of a receiver. For example, based on the process of FIG. 4, para. [0027] explains that “[r]eceiver 12 is configured to **synchronize with the counter value 26 of transmitter 30 by receiving at least two encrypted counter values in sequence.** By synchronizing, receiver 12 stores the last received encrypted value transmitted by trainable transmitter 30” (emphasis added). Para. [0028] continues this explanation, stating “[a]ccording to one exemplary embodiment, at least two rolling code signals or messages are sent by trainable transmitter 30

during a training operation, i.e., during an operation in which a user is initially synchronizing, training or programming their trainable transmitter 30 to receiver 12 or subsequently resynchronizing the transmitter 30 to receiver 12.”

Regarding “sequential encrypted rolling code values in accordance with the identified rolling code encryption algorithm,” support for this concept is provided throughout FIG. 4 and the accompanying description (see above quotes from paras. [0027] and [0028]). Further, para. [0026] explains that “[a]t step 76, counter value 26 (FIG. 2) is incremented at transmitter 30, IncRoll is decremented and stored in non-volatile memory, and the process returns to step 70. At this point the next sequential encrypted counter value is transmitted regardless of whether of the button has been released.” These transmissions occur based on identified information pulled from non-volatile memory and based on the encryption algorithm details detected and identified using the steps of FIG. 3 (see steps 52-58 of FIG. 3 and accompanying text, steps 64-68 of FIG. 4 and accompanying text).

Applicants respectfully submit that the amendments to the claims do not present a issue of new matter and that the amendments are fully supported by the present application. If the Examiner disagrees, the undersigned respectfully and expressly requests an Examiner’s interview at the Examiner’s earliest convenience.

Claim Rejections – 35 U.S.C. § 103

On page 2 of the Office Action the Examiner rejected claims 1-7, 9-10, 12, 16-18, and 21-30 as being obvious over U.S. Pat. Pub. No. 2003/0016139 to Teich (“Teich”) in view of U.S. Pat. No. 7,050,794 to Chuey et al. (“Chuey”) under 35 U.S.C. § 103(a).

Amended Claim 1 recites a “device for coupling to a vehicle and for training to activate a remote system” comprising, among other elements, “a radio frequency transmitter ... configured to identify a rolling code encryption algorithm for use with the remote system from a plurality of rolling code encryption algorithms” and “configured to synchronize a rolling code count of the remote system with a rolling code count of the radio transmitter during the training mode by

transmitting, in response to a single user input, at least two messages having sequential encrypted rolling code values in accordance with the identified rolling code encryption algorithm.”

The Applicant respectfully submits that Claim 1, as amended, is patentable over Teich and Chuey.

On page 9 of the Office Action, the Examiner acknowledges that Teich does not disclose using sequential counter values in messages to open a garage door.

Applicant respectfully submits that Teich and Chuey, in any appropriate combination, do not disclose, teach, or suggest the transmission of sequential encrypted rolling code values in response to a single user input and in accordance with an identified rolling code encryption algorithm. Further, Applicant respectfully submits that Teich and Chuey, in any appropriate combination, do not disclose identifying a rolling code encryption algorithm for later use in training mode synchronization with the remote system.

As explained in previous replies (and acknowledged by the Examiner), Teich discloses repeating the same “teach” message while a user holds down an appropriate button. Teich does not mention any activity relating to identifying “a rolling code encryption algorithm for use with the remote system from a plurality of rolling code encryption algorithms.” Further, Teich does not disclose its transmitter as having any features for learning the encryption algorithm of the remote system or for learning about an original transmitter. The “learning” in Teich appears to be limited to the garage door opener or receiver – which essentially replaces an old transmitter identifier with a new transmitter identifier to complete the learning (see Teich at Fig. 6, reproduced below, and accompanying description).

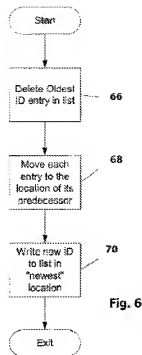
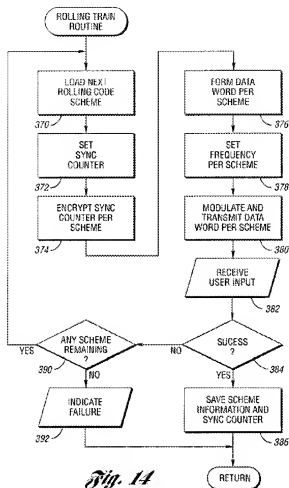


Fig. 6

Chuey also teaches an approach that does not include identifying a rolling code encryption algorithm for later use in training mode synchronization with the remote system. As explained in previous replies, Chuey sends a sequence of activation signals corresponding to different rolling code schemes (see Chuey, Fig. 14, reproduced below, and accompanying description).



Chuey's transmission of activation signals according to different schemes continues until the user identifies a working scheme (e.g., by releasing a button) or there are no remaining schemes to transmit. (Chuey, col. 9 line 59 to col. 10 line 7.) Chuey states that:

Considering again block 272, if the channel mode corresponding to the asserted input is a rolling code mode, a rolling code activation signal loop is entered. **Characteristics of the next rolling code scheme are loaded, as in block 286.** The synchronization counter associated with the current scheme is incremented, as in block 288. The incremented counter value is also stored. The synchronization counter is encrypted using the crypt key to produce a rolling code value, as in block 290. A data word is formed using the rolling code value, as in block 292. The carrier frequency is set, as in block 294. **The data word is modulated and transmitted, as in block 296.** A check is made to determine if any schemes remain

in the rolling code mode, as in block 298. If so, blocks 286, 288, 290, 292, 294 and 296 are repeated. If no schemes remain, the activation routine is terminated.

(Chuey, col. 9 line 59 to col. 10 line 7; *emphasis added*).

Unlike Chuey, in the present application, the “at least two messages having sequential encrypted rolling code values” are transmitted “in accordance with the identified rolling code encryption algorithm.” First, Chuey does not disclose the transmission of sequential encrypted rolling code values according to a single rolling code encryption algorithm during a training mode. Second, Chuey’s system is still searching for a scheme (e.g., including an encryption algorithm) to use with the remote system during Chuey’s sequential transmission of *different* schemes. Accordingly, because Chuey has not yet acquired the proper scheme for further synchronization with the remote system, Chuey’s scheme transmission activity does not disclose, teach, or suggest the transmission of “messages having sequential encrypted rolling code values in accordance with the identified rolling code encryption algorithm.”

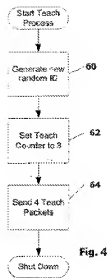
Applicant respectfully submits that Chuey’s transmission of an activation code for a first scheme followed by an activation code of a second scheme is not the same as synchronizing “a rolling code count of the remote system with a rolling code count of the radio transmitter during the training mode by transmitting, in response to a single user input, at least two messages having sequential encrypted rolling code values in accordance with the identified rolling code encryption algorithm” as recited in amended Claim 1.

Thus, both Teich and Chuey fail to individually disclose, teach or suggest synchronizing “a rolling code count of the remote system with a rolling code count of the radio transmitter during the training mode by transmitting, in response to a single user input, at least two messages having sequential encrypted rolling code values in accordance with the identified rolling code encryption algorithm.” Therefore, any appropriate combination of Teich or Chuey would not disclose, teach or suggest such a feature.

Further, the Applicant respectfully submits that Teich and Chuey are improperly combined. The Examiner stated that “it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify Teich with Chuey in order to ensure a successful transmission of the desired actuation as suggested by Chuey.” This proposed motivation, however, ignores that the teachings of Teich and Chuey conflict. The teachings conflict such that the proposed modification of Teich with Chuey would render Teich unsatisfactory for its intended purpose. Further, the teachings conflict such that the proposed modification of Teich with Chuey would change Teich’s principle of operation.

A combination of references does not render claims obvious if the proposed combination would render the prior art being modified unsatisfactory for its intended purpose or change its principle of operation. See MPEP 2143.01(V and VI).

The Applicant respectfully submits that Teich discloses the repetition of a teach message (see Teich at paras. [0029], [0022], [0048], and [0049], explaining, with reference to Fig. 4 reproduced below, “[t]o increase the likelihood of successfully learning the code at the controller, the packet is sent a few times in a row. In the example, it is sent 4 times.”). Teich describes, in para. [0029] that this configuration provides multiple advantages such as allowing “the user to make another attempt to have the GDO learn the code of the transmitter” and allowing the “programming [of] two GDOs using a common transmitter.” Teich further explains that “[b]ecause the teach packets sent in the latent teach state are **unchanged** from the packets used to program the first GDO, the second GDO can be taught the same ID code as the first one. This allows both GDOs to honor commands from a common transmitter.” (Teich at para. [0029]). Yet further, Teich clearly states that “for the purpose of this description, the transmitter address code can be said to be fixed” (as opposed to rolling) (Teich at para. [0012]).



By contrast to Teich, Chuey teaches the transmission of *different messages from different rolling code schemes* during a training process. See Fig. 14 of Chuey reproduced above, and particularly block 370 (“load next rolling code scheme.”). The Applicant respectfully submits that Chuey’s teaching of the transmission of *different messages from different rolling code schemes* conflicts with and would change Teich’s principle of operation – repetition of the *same* teach message.

Therefore, no proper combination of Teich and Chuey discloses, teaches, or suggests a “device for coupling to a vehicle and for training to activate a remote system” comprising, among other elements, “a radio frequency transmitter ... configured to identify a rolling code encryption algorithm for use with the remote system from a plurality of rolling code encryption algorithms” and “configured to synchronize a rolling code count of the remote system with a rolling code count of the radio transmitter during the training mode by transmitting, in response to a single user input, at least two messages having sequential encrypted rolling code values in accordance with the identified rolling code encryption algorithm” as recited in amended Claim 1. The Applicant respectfully submit that amended Claim 1 is patentable over Teich in view of Chuey. Dependent Claims 2-7, 9, 10, 12, and 21 which depend from independent Claim 1, are also

patentable. See 35 U.S.C. § 112 ¶ 4. The Applicants respectfully request withdrawal of the rejection of Claims 1-7, 9, 10, 12, and 21 under 35 U.S.C. § 103(a).

For many of the same reasons described above with respect to Claim 1, the Applicant also submits that Teich and Chuey do not disclose, teach, or suggest “method of providing a counter value and a transmitter identifier to a receiver configured to control a system” comprising, in combination with other elements, “identifying a rolling code encryption algorithm for use with the receiver from a plurality of rolling code encryption algorithms” and “transmitting a plurality of sequential encrypted counter values, in accordance with the identified rolling code encryption algorithm, to the receiver” as recited in independent Claim 16 (as amended). The Applicant respectfully submits that amended Claim 16 is patentable over Teich in view of Chuey. Dependent Claims 17, 18, and 22-24 which depend from independent Claim 16, are also patentable. See 35 U.S.C. § 112 ¶ 4. The Applicant respectfully requests withdrawal of the rejection of Claims 16-18 and 22-24 under 35 U.S.C. § 103(a).

For many of the same reasons described above with respect to Claim 1, the Applicant also submits that Teich and Chuey do not disclose, teach, or suggest “radio frequency remote control system” comprising, in combination with other elements, “a transmitter ... configured to identify a rolling code encryption algorithm for use with the receiver from a plurality of rolling code encryption algorithms and configured to send at least two sequential encrypted rolling code messages in response to one user input and in accordance with the identified rolling code encryption algorithm” and “configured to synchronize with the transmitter by decrypting the sequential encrypted rolling code messages and checking for whether the counters obtained by the decryptions are sequential according to the encryption and decryption algorithms used by the radio frequency remote control system” as recited in independent Claim 25 (as amended). The Applicant respectfully submits that amended Claim 25 is patentable over Teich in view of Chuey. Dependent Claims 26-28 which depend from independent Claim 25, are also patentable. See 35 U.S.C. § 112 ¶ 4. The Applicant respectfully requests withdrawal of the rejection of Claims 25-28 under 35 U.S.C. § 103(a).

For many of the same reasons described above with respect to Claim 1, the Applicant also submits that Teich and Chuey do not disclose, teach, or suggest a “method of training a transmitter to a receiver in a rolling code-based radio frequency control system” comprising, in combination with other elements, “identifying a rolling code encryption algorithm for use with the receiver from a plurality of rolling code encryption algorithms and ... using the identified rolling code encryption algorithm to provide at least two sequential counter values” as recited in independent Claim 29 (as amended). The Applicant respectfully submits that amended Claim 29 is patentable over Teich in view of Chuey. Dependent Claim 30 which depends from independent Claim 29, is also patentable. See 35 U.S.C. § 112 ¶ 4. The Applicant respectfully requests withdrawal of the rejection of Claims 29 and 30 under 35 U.S.C. § 103(a).

Applicant believes that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extension fees to Deposit Account No. 19-0741.

Respectfully submitted,

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